

Application No. 10/500,366
Amendment dated
Reply to Office Action of March 20, 2007

Docket No.: 22106-00060-US1

AMENDMENTS TO THE CLAIMS

RECEIVED
CENTRAL FAX CENTER

AUG 17 2007

The following listing of claims replaces all prior versions and listings:

Please cancel claims 4, 17 and 20 without prejudice or disclaimer.

1. (Cancelled)
2. (Previously presented) The method according to claim 21, wherein starting welding occurs by focusing the laser means on a point of the copper body proximate to the joint between the surface of said copper body and the face of said plate.
3. (Previously presented) The method according to claim 21, wherein the angle of incidence of said laser means with respect to the perpendicular to the surface to be welded is between 5 and 20°.
4. (Cancelled)
5. (Previously presented) The method according to claim 21, wherein said laser means comprise a solid-state laser.
6. (Previously presented) The method according to claim 21, wherein said plate comprises at least one copper layer.
7. (Previously presented) The method according to claim 6, wherein the copper layer constitutes said one face.

Application No. 10/500,366

Docket No.: 22106-00060-US1

Amendment dated

Reply to Office Action of March 20, 2007

8. (Previously presented) A contact element obtained with a method for welding a plate comprising at least one layer based on Ag alloys to a copper body, said method comprising:

superimposing and coupling one face of said plate on a surface of said copper body;

starting welding by focusing a laser means on a point located proximate to a joint between said one face and said surface;

maintaining an angle of incidence of said laser means at values other than 0° with respect to the perpendicular to the surface to be welded; and

moving the laser means with respect to the joint while keeping a component of the angle of incidence of said laser means oriented along the same direction as relative motion between said laser means and said joint and keeping said laser means pointed away from a portion of the joint that has been welded, thereby forming an elongated weld.

9. (Previously presented) The contact element according to claim 8, wherein said copper body is the moving contact of a low-voltage contactor or circuit breaker.

10. (Previously presented) The contact element according to claim 8, wherein said copper body is the fixed contact of a low-voltage contactor or circuit breaker.

11. (Previously presented) A low-voltage circuit breaker comprising one or more contact elements according to claim 9.

12. (Previously presented) A low-voltage contactor comprising one or more contact elements according to claim 9.

13. (Previously presented) The method according to claim 2, wherein at least 70% of molten material formed by welding lies on a side of the joint that belongs to the copper body.

Application No. 10/500,366
Amendment dated
Reply to Office Action of March 20, 2007

Docket No.: 22106-00060-US1

14. (Previously presented) The method according to claim 3, wherein at least 70% of molten material formed by welding lies on a side of the joint that belongs to the copper body.
15. (Previously presented) The method according to claim 2, wherein said laser means comprise a solid-state laser.
16. (Previously presented) The method according to claim 3, wherein said laser means comprise a solid-state laser.
17. (Cancelled)
18. (Previously presented) The method according to claim 2, wherein said plate comprises at least one copper layer.
19. (Previously presented) The method according to claim 3, wherein said plate comprises at least one copper layer.
20. (Cancelled)

Application No. 10/500,366
Amendment dated
Reply to Office Action of March 20, 2007

Docket No.: 22106-00060-US1

21. (Currently amended) A method for mutually welding a plate comprising at least one layer based on Ag alloys and a copper body using a laser means, said method comprising:

superimposing and coupling one face of said plate on a surface of said copper body;

starting welding by focusing a ~~said~~ laser means on a point located proximate to a joint between said one face and said surface of said copper body;

maintaining an angle of incidence of said laser means at values other than 0° with respect to the perpendicular to ~~the said surface of said copper body to be welded~~; and

moving the laser means with respect to the joint such that an elongated weld is formed while a component of the angle of incidence of said laser means is maintained oriented along the same direction as relative motion between said laser means and said welded joint and such that said laser means is pointed towards a direction away from a portion of said joint that has been welded, thereby forming an elongated weld having a weld pool that is pushed along said joint,

wherein the elongated weld comprises molten material of which at least 70% lies on a side of the elongated weld that is closer to said copper body.